DRAFT
MINOR PERMIT APPLICATION FORMS
February 3, 2004

This document contains the following application forms:

- Stationary Source Identification Form
- Minor Permit Emission Summary Form
- Emission Unit Information Form
- Emission Unit And Ambient Analysis Information Form
- Owner Requested Limit Form

These forms are required for minor permit applications by the proposed 18 AAC 50.540. [Not all forms are required for any stationary source.]

The forms in this document show what the content of an application must include. The format of the forms will change. The department may format them to be paper, electronic, or on-line forms.

The department may choose not to require all of the information for some types of emission units or stationary sources.

The intent of these forms is to identify the kinds of information the department will need to

- determine whether a new or modified stationary source will cause a violation of ambient air quality standards or a control strategy [such as emission standards or prohibitions], and
- write permits that will satisfy the proposed 18 AAC 50.542 and 50.544.

The department requests comment on how well the public notice versions of these forms carry out this intent.

Minor Permit Application
Stationary Source Identification Form

Project Name	
Stationary Source Physical address	
UTM Coordinates or latitude & longitude	
Name of legal owner	
Mailing address of legal owner	
Telephone number of legal owner	
E mail address of legal owner	
Name of operator	
Mailing address of operator	
Telephone number of operator	
E mail address of operator	
Name of designated agent	
Mailing address of designated agent	
Physical address of designated agent	
Telephone number of designated agent	
E mail address of designated agent	
Name of billing contact	
Mailing address of billing contact	
Telephone number of billing contact	
E mail address of billing contact	
Name of application contact	
Mailing address of application contact	
Telephone number of application contact	
E Mail address of application contact	
Does this project	Check one
Create a new stationary source	
Modify or relocate an existing source	
If existing, does the source have	Check one
An air quality permit (give number)	
An Owner Requested Limit (give number)	
A Pre Approved (Emission) Limit (give number)	
The Source is classified as	Check any that apply
An asphalt plant	
A thermal soil remediation unit	
A rock crusher	
An incinerator with 1000 lbs/hr capacity	
A sewage sludge incinerator	
A portable oil and gas operation & flare	
A petroleum refinery	
A coal preparation plant	
A Portland cement plant	
An emission unit with a rated capacity of 10	

MMBtu per hour or more that commences construction or relocates in an SO2 special protection area after January 18, 1997	
A Port of Anchorage Stationary Source	
Provide a short description of the project: How will this project affect an existing process. If new, what is the nature and purpose of the project. Attach additional sheets if necessary.	
List the number and type of emission units (including non road engines) in this project (e.g. no. of diesel engines; no. of boilers)	
Attached a completed Coastal Project Questionnaire (CPQ) for the stationary source if located within an approved coastal district.	
A certification consistent with 18 AAC 50.205.	

Minor Permit Application
Emission Summary Form

Note: The Department intends to develop on-line forms that would be used by minor permit applicants. The Department will ask for emission summary information under 18 AAC 50.540(b)(2). The specific questions will be dependent on the answers provided to previous questions, but may include the following (or similar). This form would be used by all minor source permit applicants.

Potential Emissions

Enter the total potential unlimited emissions associated with this project

- NO_x
- SO_2
- PM-10
- CO
- VOC

Allowable Emissions

Enter the total allowable (limited) emissions associated with this project

- NO_x
- SO_2
- PM-10
- CO
- VOC

Actual Emissions

Enter the total actual emissions from the existing source

- NO_x
- SO_2
- PM-10
- CO
- VOC

Fuel Information

For each ***liquid fuel*** used at this source, provide:

- Description (e.g., DF#2, Used Oil, Fish Oil, etc)
- Maximum sulfur content (percent, by weight):
- Fuel density (lb/gal):
- Lower Heating Value (Btu/gal):

For each ***gaseous fuel and flare gas*** used at this source, provide:

- Description (e.g., natural gas, propane, etc)
- Maximum H_2S content (ppm):
- Lower Heating Value (Btu/scf):

For each ***solid fuel*** used at this source, provide:

- Description (e.g., bituminous coal, etc)
- Maximum sulfur content (percent, by weight):
- Lower Heating Value (Btu/lb):

Minor Permit Application
Emission Unit Information Form

Note: The Department intends to develop on-line forms that would be used by minor permit applicants. The Department will ask for emission unit information under 18 AAC 50.540(c)(1). The specific questions will be dependent on the answers provided to previous questions, but may include the following (or similar).

Applicants will need to provide the following information for *each* emission unit (as applicable).

This form asks for information showing that the emission unit is capable of complying with the department's emission standards and prohibitions. In many cases a the information already provided will be adequate. For example, for a heater burning very low sulfur natural gas, no additional information will be needed to show that the unit is capable of complying with the particulate matter, opacity, or SO_2 emission standards. For other emission units, emission rate information such as manufacturer data may be needed for an adequate showing.

Reciprocating Engines, Turbines, Boilers & Heaters

- Make & model
- Rating (brake-hp, kW, MMBtu/hr fuel input, MMBtu/hr boiler output, boiler-hp)
- Is this unit portable or permanent (stationary)?
  - If portable and if internal combustion, is this a non-road engine?
  - If portable:
    - is this unit classified as intermittently used oilfield support equipment, per AWQ 03-016?
    - is this unit classified as a construction unit per AWQ 03-017?
- Is this a primary (base-load) or limited operation unit?
  - If limited operation, is this a
    - peaking unit,
    - black-start unit,
    - emergency/backup unit, or
    - other _____?
- Fuels (select all that apply): diesel, gas, propane, fish oil, used oil, other - _____
- Maximum fuel rate for each fuel (gal/hr, scf/hr, MMBtu/hr, lbs/hr)
- Briefly describe any associated air pollution control equipment or methods designed to reduce or control emissions:
- Maximum short-term emission factors (lb/hr) and data source (e.g., source test, vendor data, AP-42, other? - ____)
  - NO_2
  - SO_2
  - PM-10
  - CO
  - VOC

- Proposed operational limits (e.g., gal/yr, hrs/yr, kW-hr, seasonal operation - _____, non-concurrent operation with unit - _____, other? - _____)

- Allowable emissions (tpy)
  - NO_2
  - SO_2
  - PM-10
  - CO
  - VOC

Flares:

- Heat release rate (MMBtu/hr)
  - Pilot/purge operation:
  - Maximum:
- Flare gas heat content (Btu/scf):
- Flare gas H_2S content (ppm):
- Proposed annual fuel limit (MMscf/yr):
- Allowable emissions (tpy)
  - NO_2
  - SO_2
  - PM-10
  - CO
  - VOC

Incinerators:

- Make & model:
- Rated capacity (lbs per hour):
- Waste type:
- Control equipment description:

Other:

- Equipment Type:
- Make & model:
- Maximum rated capacity or maximum design throughput:
- Fuel type(s):
- Maximum design fuel consumption rate:
- Materials processed:
- Maximum material processing rate:
- Describe method of operation:
- Control equipment:
  - Pollutants controlled:
  - Provide a physical description of the control equipment:
  - Provide a description of the significant operating parameters and set points for the control equipment:

Asphalt Plants and Soil Remediation Units:

- Source List

  - ❑ Dryers:
    - ❑ Make & model:
    - ❑ Rated Capacity (tons per hour)_____
    - ❑ Primary Burner: Size Btu/hr Chamber Size _____ cubic feet &
      Maximum fuel feed _____ gallon/hr
  - ❑ Afterburners
    - ❑ Rated Capacity (tons per hour)_____
  - ❑ Material handling devices such as:
    - ❑ Conveyors,
    - ❑ Loaders,
    - ❑ Bins,
    - ❑ Elevators,
    - ❑ Screens, or
    - ❑ Chutes
  - ❑ Asphalt cement heaters,
  - ❑ Fuel fired Silo heaters,
  - ❑ Mixers,
  - ❑ Pug mills,
  - ❑ Dryer control devices:
  - ❑ Baghouses,
  - ❑ Cyclones,
  - ❑ Scrubbers,
  - ❑ Knockout Boxes,
  - ❑ Stationary diesel engines: Size _____ hp, max fuel rate _____gal/hr
  - ❑ Other _____.

- Asphalt plant – constructed, modified, or reconstructed before or after June 11, 1973? ____.

Distance to nearest residence._____
Distance to nearest other occupied structure._____

❑ Attach Operation and Maintenance Plan
❑ Attach a particulate matter source test report dated within the last five years, or schedule for conducting the test;

For Asphalt Plant:
❑ Attach Fugitive dust plan for asphalt plant within one mile of nearest residence or other occupied structure.

For Soil Remediation Unit:
❑ Attach dust and VOC control plan

❑ Attach a carbon monoxide continuous emission monitor performance test report, or schedule for conducting the test;
❑ Attach approval from Spill Protection and Response (SPAR) of your facility Contaminated Sites Workplan

Rock Crushers:

For Initial crushers, Other Crushers, Grinding Mills, Screening Operations, Belt Conveyors, Bucket Elevators, Bagging Operations, Storage Bins, Enclosed Truck or Railcar Loading Stations, Stationary fuel storage tanks:

Equipment Id. _____Rated capacity _____ (units) Date Built _____

Distance to nearest offsite residence or other occupied structure._____

All:

- Information showing that the emission unit is capable of complying with applicable standards in 18 AAC 50.045 – 18 AAC 50.080.

- Other information requested in writing by the department as necessary to determine if the proposed stationary source or modification will meet the criteria in 18 AAC 50.542, or allow the department to issue a permit that satisfies 18 AAC 50.544.

Minor Permit Application
Emission Unit and Ambient Analysis Information Form

Note: The Department intends to develop on-line forms that would be used by minor permit applicants. The Department will ask for emission unit and ambient analysis information under 18 AAC 50.540(c)(2). The specific questions will be dependent on the answers provided to previous questions, but may include the following (or similar).

For each new or modified emission unit, applicants will need to provide the following information (as applicable).

For each existing emission unit that that is not being modified, the applicant must provide sufficient emission unit information for the department to run a dispersion model, such as ISCST3. The information may be provided using this form or as an input file in a suitable format for use in a dispersion model designated by the department. The input file would be an attachment to this form.

This form asks for information showing that the emission unit is capable of complying with the department's emission standards and prohibitions. In many cases the information already provided will be adequate. For example, for a heater burning very low sulfur natural gas, no additional information will be needed to show that the unit is capable of complying with the particulate matter, opacity, or SO_2 emission standards. For other emission units, emission rate information may be needed.

EMISSION UNIT INFORMATION

Reciprocating Engines, Turbines, Boilers & Heaters

- Make & model
- Rating (brake-hp, kW, MMBtu/hr fuel input, MMBtu/hr boiler output, boiler-hp)
- Is this unit portable or permanent (stationary)?
  - If portable and if internal combustion, is this a non-road engine?
  - If portable:
    - is this unit classified as intermittently used oilfield support equipment, per AWQ 03-016?
    - is this unit classified as a construction unit per AWQ 03-017?
- Is this a primary (base-load) or limited operation unit?
  - If limited operation, is this a
    - peaking unit,
    - black-start unit,
    - emergency/backup unit, or
    - other _____?
- Fuels (select all that apply): diesel, gas, propane, fish oil, used oil, other - _____
- Maximum fuel rate for each fuel (gal/hr, scf/hr, MMBtu/hr, lbs/hr)

- Briefly describe any associated air pollution control equipment or methods designed to reduce or control emissions:
- Maximum short-term emission factors (lb/hr) and data source (e.g., source test, vendor data, AP-42, other? - ____)
  - NO_2
  - SO_2
  - PM-10
  - CO
  - VOC
- Proposed operational limits (e.g., gal/yr, hrs/yr, kW-hr, seasonal operation - _____, non-concurrent operation with unit - _____, other? - _____)
- Allowable emissions (tpy)
  - NO_2
  - SO_2
  - PM-10
  - CO
  - VOC

Flares:

- Heat release rate (MMBtu/hr)
  - Pilot/purge operation:
  - Maximum:
- Flare gas heat content (Btu/scf):
- Flare gas H_2S content (ppm):
- Proposed annual fuel limit (MMscf/yr):
- Allowable emissions (tpy)
  - NO_2
  - SO_2
  - PM-10
  - CO
  - VOC

Incinerators:

- Make & model:
- Rated capacity (lbs per hour):
- Type of waste:
- Control Equipment description

Other:

- Equipment Type:
- Make & model:
- Maximum rated capacity or maximum design throughput:
- Fuel type(s):
- Maximum design fuel consumption rate:
- Materials processed:
- Maximum material processing rate:
- Describe method of operation:

- Schedule of operation (indicate the maximum operation for each time period):
  - 3-hr
  - 8-hr
  - 24-hr
  - Days/yr
- Control equipment:
  - Pollutants controlled:
  - Provide a physical description of the control equipment:
  - Provide a description of the significant operating parameters and set points for the control equipment:

Asphalt Plants and Soil Remediation Units:

- Source List

  - ❑ Dryers:
    - ❑ Make & model:
    - ❑ Rated Capacity (tons per hour)_____
    - ❑ Primary Burner: Size Btu/hr Chamber Size _____ cubic feet & Maximum fuel feed _____ gallon/hr
  - ❑ Afterburners
    - ❑ Rated Capacity _____(units)____
  - ❑ Material handling devices such as:
    - ❑ Conveyors,
    - ❑ Loaders,
    - ❑ Bins,
    - ❑ Elevators,
    - ❑ Screens, or
    - ❑ Chutes
  - ❑ Asphalt cement heaters,
  - ❑ Fuel fired Silo heaters,
  - ❑ Mixers,
  - ❑ Pug mills,
  - ❑ Dryer control devices:
  - ❑ Baghouses,
  - ❑ Cyclones,
  - ❑ Scrubbers,
  - ❑ Knockout Boxes,
  - ❑ Stationary diesel engines: Size _____ hp, max fuel rate _____gal/hr
  - ❑ Other _____.

- Asphalt plant – constructed, modified, or reconstructed before or after June 11, 1973? ____.

❑ Attach Operation and Maintenance Plan

❑ Attach a particulate matter source test report dated within the last five years, or schedule for conducting the test;

For Asphalt Plant:

❑ Attach Fugitive dust plan for asphalt plant within one mile of nearest residence or other occupied structure.

For Soil Remediation Unit:

❑ Attach dust and VOC control plan

❑ Attach a carbon monoxide continuous emission monitor performance test report, or schedule for conducting the test;

❑ Attach approval from Spill Protection and Response (SPAR) of your facility Contaminated Sites Workplan

Rock Crushers:

For Initial crushers, Other Crushers, Grinding Mills, Screening Operations, Belt Conveyors, Bucket Elevators, Bagging Operations, Storage Bins, Enclosed Truck or Railcar Loading Stations, Stationary fuel storage tanks:

Equipment Id. _____Rated capacity _____ (units) Date Built _____

And:

- Information showing that the emission unit is capable of complying with applicable standards in 18 AAC 50.045 – 18 AAC 50.080.

- Other information requested in writing by the department as necessary to determine if the proposed stationary source or modification will meet the criteria in 18 AAC 50.542, or allow the department to issue a permit that satisfies 18 AAC 50.544.

STACK INFORMATION

Units with Stacks (e.g., Engines, Turbines, Boilers & Heaters)

- Unit name/ID:

Physical Stack Parameters

- UTM coordinates (NAD27):
- Height above base elevation (m):
- Stack orientation (vertical or angle from vertical):
- Rain cap (yes or no)?
- Dual or combined stack?
- Exit diameter (m):
- Base elevation (meters above mean sea-level):

Exhaust Parameters

- Full-load flow rate (m^3/s):
- Full-load exit temperature (K):
- Data source (vendor data, source test, other _____)?

Point Source Flares:

- Unit name/ID:
- Height above base elevation (m):
- Flare orientation (vertical or horizontal):
- Base elevation (meters above mean sea level):

Candle Flares:

- Unit name/ID:
- Flare height (m):
- Flare pit length and width (m):
- Base elevation (m above mean sea-level):

Fugitive PM Activities

- Unit/activity name/ID:
- Release height (m):
- Approximate footprint (length by width) of activity (m):

DOWNWASH INFORMATION

Applicants will need to provide the following information for *each* building, tank, cooling tower, or other structure located on the applicant's property which may cause plume downwash.

- Structure name/description (*the name/description must be consistent with the name/description provided on the site-plan*):
- Maximum height (m):

SPECIAL INTEREST RECEPTOR INFORMATION

Applicants will need to provide the following information for *each* building that is used for off-site housing, recreation, meals.

- Structure name/description (*the name/description must be consistent with the name/description provided on the site-plan*):
- Maximum height (m):

LOCATION AND LAYOUT

Provide a scaled site plan showing the location of each emission unit to be constructed or modified, fugitive PM activity, structure (e.g., buildings, tanks, cooling towers) fencelines, property boundaries, roads and other points of interest. Clearly label each	

unit/activity, structure, road and point of interest. Clearly indicate all off duty areas (including on-site housing, recreational areas, mess halls etc.) if applicable. Clearly indicate the scale and location of true north. Provide at least one UTM coordinate marker (provide coordinate and datum). Acceptable electronic formats are: AutoCAD, (DWG, DXF, DWF) and digital pictures (TIF, JPG, BMP). Standard compression utilities (ZIP, GZ) are acceptable.	
Provide a scaled 1:63,000 ot 1: 25,000 topographical map of the site showing the source location, local communities, other points of interest, and major geographical features within at least a three kilometer radius of the source. Clearly indicate the scale, datum, contour elevations and location of true north. Acceptable electronic formats are: TIF. Standard compression utilities (ZIP, GZ) are acceptable.	

ATTACHMENTS

Please check

- ❑ Site plan
- ❑ Topographical map
- ❑ Other _____

Minor Permit Application
Owner Requested Limit Form

A list of all emission units at the stationary source	
A calculation of the stationary source's actual emissions and potential to emit air pollutants	
A description of the proposed limit, including for each pollutant a calculation of the effect the limit will have on the stationary source's potential to emit and the allowable emissions	
A description of a verifiable method to attain and maintain the limit including monitoring and record keeping requirements	
A citation to the requirement for a permit that the person seeks to avoid including an explanation of why the requirement would apply in the absence of the limit and how the limit allows the person to avoid the requirement for a permit;	
A statement that the owner or operator of the stationary source will be able to comply with the limit; and	
A retainer of $300.00 to cover the department's review of the requested limit	